

WHAT IS CLAIMED IS:

1. A process for inhibiting development of allergic disease, the process comprising exposing a neonatal or immature mammal or bird to irradiation-detoxified lipopolysaccharide derived from microbial, protozoan and/or fungal endotoxin.
2. A process according to claim 1, wherein the irradiation-detoxified lipopolysaccharide is detoxified by exposure of the endotoxin to irradiation at a level of from about 25 to about 150 kGy.
3. A process according to claim 1, wherein the irradiation changes the structure of the endotoxin while maintaining its positive immune effect in the resulting irradiation-detoxified lipopolysaccharide.
4. A process according to claim 1, wherein the irradiation-detoxified lipopolysaccharide is adapted to stimulate the Th 1 arm of the immune system.
5. A process according to claim 1, wherein an infant mammal is exposed.
6. A process according to claim 5, wherein the exposure is achieved by administering a topical composition comprising the irradiation-detoxified lipopolysaccharide to the infant mammal.
7. A process according to claim 6, wherein the topical composition further comprises a powder.

8. A process according to claim 7, wherein the powder comprises talcum powder, corn starch, beet starch, rice flour, oatmeal, or a mixture thereof.
9. A process according to claim 6, wherein the topical composition is in the form of a topical cream.
10. A process according to claim 1, wherein the exposure is achieved by administering an aerosol spray composition comprising the irradiation-detoxified lipopolysaccharide.
11. A process according to claim 5, wherein the exposure is achieved by contacting the infant mammal with a wipe impregnated with a composition comprising the irradiation-detoxified lipopolysaccharide.
12. A process according to claim 5, wherein the exposure is achieved by contacting the infant mammal with a diaper impregnated with a composition comprising the irradiation-detoxified lipopolysaccharide.
13. A process according to claim 1, wherein a human of 1 month to 2 years of age is exposed.
14. A process according to claim 1, wherein a primate of 2 weeks to 12 months of age is exposed.

15. A process according to claim 1, wherein a dog or cat of 1 week to 12 months of age is exposed.

16. A process according to claim 6, wherein the irradiation-detoxified lipopolysaccharide is delivered in a concentration from 0.01 ug/g to 100 ug/g of topical composition.

17. A process according to claim 1, wherein exposure to the irradiation-detoxified lipopolysaccharide is achieved shortly after birth and during the maturing life cycle of the mammal or bird.

18. A process according to claim 1, wherein exposure to the irradiation-detoxified lipopolysaccharide is achieved on a daily basis during growth of the mammal or bird.

19. A process according to claim 1, wherein exposure to the irradiation-detoxified lipopolysaccharide is achieved on a weekly basis during growth of the mammal or bird.

20. A process according to claim 1, wherein the mammal or bird is a farm animal.

21. A process according to claim 20, wherein the farm animal is a cow, pig, goat, horse, chicken or turkey of 2 days to 12 months of age.